

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A Cable Modem Termination System (CMTS), for coupling via separately provided cables to a network, ~~such as a Hybrid Fiber Coax Network~~, the CMTS comprising:

- a) a chassis having at least a first and a second card interface, said chassis having electrical paths for coupling signals between said first and said second card interface, said signals including a plurality of RF signals;
- b) at least one I/O Card, said I/O Card having a connector interface for coupling to the network via the cables, said I/O Card having a first chassis interface for mating with said first card interface; and
- c) at least one Line Card having CMTS processing functionality, said Line Card having a second chassis interface for mating with said second card interface, wherein said Line Card may be mated and unmated from the chassis independent of the cables coupling the I/O Card to the network such that in a single action a plurality of RF signals are simultaneously coupled and uncoupled, respectively, the second card interface and the second chassis interface using multi-pin connectors having in cross-section an array of conductors, and each RF signal in the array being surrounded by protective RF grounds.

2. (original) The CMTS of claim 1, wherein the chassis includes a midplane to which said first and second card interface are mounted.

3. (original) The CMTS of claim 2, wherein the first and second card interface are mounted on opposite sides of said midplane.

4. (original) The CMTS of claim 3, wherein the first and second card interface share common parts.

5 and 6. (canceled)

7. (currently amended) The CMTS of claim ~~[[5]]~~ 1, wherein the second card interface ~~[[is]]~~ includes a rectangular multi-receptacle jack and the second chassis interface ~~[[is]]~~ includes a rectangular multi-pin plug.

8. (original) The CMTS of claim 7, wherein RF ground pins are used to protectively surround each RF signal on the rank, file, and diagonals.

9. (original) The CMTS of claim 8, wherein at least 9 connector pins are associated with the coupling of each protected RF signal.

10. (original) The CMTS of claim 8, wherein each connector couples a plurality of protected RF signals.

11. (original) The CMTS of claim 10, wherein RF ground pins are shared in common by at least two of said plurality of protected RF signals.

12. (original) The CMTS of claim 8, wherein the rectangular multi-pin connectors are compatible with the compact-PCI (cPCI) standard.

13. (original) The CMTS of claim 9, wherein the second card interface is a cPCI J5 connector and the second chassis interface is a cPCI P5 connector.

14. (original) The CMTS of claim 13, wherein said connectors present a negligible impedance discontinuity when coupling the protected RF signals in a 75-ohm transmission system.

15. (currently amended) ~~The CMTS of claim 1A~~ Cable Modem Termination System (CMTS), for coupling via separately provided cables to a network, the CMTS comprising:
a chassis including at least a first card interface and a second card interface, the chassis including electrical paths for coupling signals between the first card interface and the second card interface, the signals including a plurality of RF signals;
at least one I/O card, the I/O card including a connector interface for coupling to the network via the cables, the I/O card including a first chassis interface for mating with the first card interface; and

at least one Line Card including CMTS processing functionality, the Line Card including a second chassis interface for mating with the second card interface, the Line Card being configured to mate and unmate from the chassis independent of the cables coupling the I/O card to the network, wherein the Line Card includes including a detachable IF-to-RF module.

16. (currently amended) The CMTS of claim 15, wherein the IF-to-RF module ~~has RF signals coupled with~~ couples to the Line Card via a plurality of coaxial connectors that are simultaneously mated and unmated when the IF-to-RF module is attached and detached, respectively.

17. (currently amended) The CMTS of claim 15, ~~wherein the IF-to-RF module~~ [[has]] being configured to transmit RF signals coupled with to the Line Card via a plurality of coaxial cables.

18. (currently amended) ~~The CMTS of claim 1~~ A Cable Modem Termination System (CMTS), for coupling via separately provided cables to a network, the CMTS comprising:
a chassis including at least a first card interface and a second card interface, the chassis including electrical paths for coupling signals between the first card interface and the second card interface, the signals including a plurality of RF signals;
at least one I/O card, the I/O card including a connector interface for coupling to the network via the cables, the I/O card including a first chassis interface for mating with the first card interface; and

at least one Line Card including CMTS processing functionality, the Line Card including a second chassis interface for mating with the second card interface, the Line Card being configured to mate and unmate from the chassis independent of the cables coupling the I/O Card to the network, wherein the Line Card includes including a detachable signal processing module.

19. (original) The CMTS of claim 18, wherein the detachable signal processing module includes upstream and downstream digital signal processing functions.

20. (original) The CMTS of claim 18, wherein the detachable signal processing module includes analog-to-digital converters and digital-to-analog converters.

21. (currently amended) ~~The CMTS of claim 1, further including~~ A Cable Modem Termination System (CMTS), for coupling via separately provided cables to a network, the CMTS comprising:

a chassis including at least a first card interface and a second card interface, the chassis including electrical paths for coupling signals between the first card interface and the second card interface, the signals including a plurality of RF signals;

at least one I/O Card, the I/O Card including a connector interface for coupling to the network via the cables, the I/O Card including a first chassis interface for mating with the first card interface;

at least one Line Card including CMTS processing functionality, the Line Card including a second chassis interface for mating with the second card interface, the Line Card being

configured to mate and unmate from the chassis independent of the cables coupling the I/O Card to the network; and

a packet network interface, said packet network interface being coupled to said Line Card via said I/O Card, said packet network interface also being coupled to the network, the packet network interface including a switch for selectively coupling the Line Card to the network.

22. (canceled)

23. (currently amended) The CMTS of claim ~~[[22]]~~ 21, wherein the switch is a redundant switch.

24. (currently amended) The CMTS of claim ~~[[22]]~~ 21, wherein the switch is coupled to the Line Cards via twisted-pair Ethernet.

25. (currently amended) The CMTS of claim ~~[[22]]~~ 21, wherein the switch is coupled to the network via at least one optical fiber.

26. (currently amended) The CMTS of claim ~~[[22]]~~ 21, wherein the switch functionality is partitioned into a first switch card and a second switch card, each for mounting on the chassis, said first switch card being cabled to each of the plurality of Line Cards, the second switch card being coupled to the first switch card via the chassis, and wherein said second switch card can be coupled to and uncoupled from the first switch card independent of said cabling between said first switch card and said Line Cards.

27. (original) The CMTS of claim 21, further including a chassis control module (CCM) for monitoring the status of CMTS subsystems and allocating CMTS resources, said CCM being coupled to a plurality of Line Cards and the network via the packet network interface.

28. (original) The CMTS of claim 27, wherein the CCM is a redundant CCM (RCCM).